

**IN THE CLAIMS**

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made.

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1. **(Previously Amended)** A method for transmitting traffic having disparate rate components, comprising:  
receiving a plurality of traffic streams, each traffic stream including a first component and a reduced rate second component associated with the first component;  
segmenting the first components of the traffic streams into successive cells; and  
distributing the second components of the traffic streams between a defined set of the cells for in-band transmission of the second components in a payload of each of the cells.
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2. **(Original)** The method of Claim 1, further comprising substantially evenly distributing the second components of the traffic streams between the defined set of cells.
3. **(Original)** The method of Claim 1, further comprising segmenting the first component of each traffic stream into a fixed position in the successive cells.
4. **(Original)** The method of Claim 1, wherein the defined set of cells is a superframe, further comprising transmitting successive superframes without insertion of intervening superframe information.
5. **(Previously Amended)** The method of Claim 1, wherein distributing the second component of the traffic streams between the defined set of cells comprises including in each cell payload the second component for a portion of the traffic streams such that the second components for all of the traffic streams are included within the defined set of cells.
6. **(Original)** The method of Claim 1, wherein the reduced rate second component comprises information received as superframe information.
7. **(Original)** The method of Claim 1, wherein the reduced rate second component comprises control information for the first component.

8. **(Original)** The method of Claim 1, wherein the first component is a DS-0 and the reduced rate second component is the Channel Associated Signaling (CAS) value for the DS-0.

9. **(Original)** The method of Claim 1, wherein the cell is asynchronous transfer mode (ATM) cell.

10. **(Original)** The method of Claim 1, wherein the first component is a DS-0, the reduced rate second component is the CAS value for the DS-0, and the cell is an ATM adaption layer (AAL) cell.

11. **(Original)** The method of Claim 10, further comprising repeating included CAS values in each AAL cell.

12. **(Original)** The method of Claim 10, further comprising providing a 4 bit sequence count in an AAL header for the AAL cell.

13. **(Previously Amended)** The method of Claim 1, further comprising:  
storing a current value for the reduced rate second components for each traffic stream in a memory; and  
retrieving the second components of traffic streams for inclusion in the cells from the memory.

14. **(Previously Amended)** A method for reformatting telephony traffic into asynchronous transport mode (ATM) adaption layer (AAL) cells for transmission on a network, comprising:

receiving a plurality of telephony streams, each telephony stream including a DS-0 channel and a Channel Associated Signaling (CAS) value for the DS-0 channel;

segmenting the DS-0 channels into successive AAL cells; and

including in a payload of each AAL cell the CAS value for a portion of the DS-0 channels such that the CAS values for all of the DS-0 channels are included within a superframe of AAL cells.

15. **(Original)** The method of Claim 14, wherein the superframe contains 24 AAL cells.

16. **(Original)** The method of Claim 14, wherein the superframe contains 16 AAL cells.

17. **(Previously Amended)** A telecommunications signal embodied in a transmission media comprising:

a superframe including a plurality of cells, each cell having a payload;

the cell payloads each comprising a successive segment of a first component for a plurality of traffic streams and a reduced rate second component for a portion of the traffic streams; and

the cells in the superframes together comprising the reduced rate second components for all of the traffic streams.

18. **(Original)** A telecommunications signal of Claim 17, the first component comprising a DS-0 and the reduced rate second component comprising the CAS value for the DS-0.

19. **(Previously Amended)** The telecommunication signal of Claim 17, further comprising the successive segments of the first component for the traffic streams having a fixed position in each cell.

20. **(Original)** The telecommunications signal of Claim 17, the reduced rate second component comprising superframe information.

21. **(Original)** The telecommunications signal of Claim 17, the reduced rate second component comprising control information for the first component.

22. **(Previously Amended)** The telecommunications signal of Claim 17, substantially each cell in the superframe comprising reduced rate second components for a same number of traffic streams.

23. **(Previously Amended)** A telecommunications device, comprising:  
one or more ports receiving a plurality of traffic streams, each traffic stream including a first component and a reduced rate second component associated with the first component;  
and

a reformatting device operable to segment the first components of the traffic streams into successive cells and to distribute the second components of the traffic streams between a defined set of cells for in-band transmission of the second components in a payload of each of the cells.

24. **(Original)** The telecommunications device of Claim 23, further comprising the reformatting device operable to substantially evenly distribute the second components of the traffic streams between the defined set of cells.

25. **(Original)** The telecommunications device of Claim 23, further comprising the reformatting device operable to segment the first components of each traffic stream into a fixed position in the successive cells.

26. **(Previously Amended)** The telecommunications device of Claim 23, the reformatting device operable to include in each cell payload the second component for a portion of the traffic streams such that the second components for all of the traffic streams are included within the defined set of cells.

27. **(Original)** The telecommunications device of Claim 23, wherein the first component is a DS-0, the reduced rate second component is the CAS value for the DS-0 and the cell is an ATM adaption layer (AAL) cell.

28. **(Original)** The telecommunications device of Claim 27, the reformatting device operable to provide a 4 bit sequence count in an AAL header for the AAL cell.